

Dialog 10/721,144  
9/26/05 LLM

Trying 31060000009999...Open

# DIALOG INFORMATION SERVICES

PLEASE LOGON:

\*\*\*\*\* HHHHHHHH SSSSSSSS? ### Status: Signing onto Dialog \*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\* HHHHHHHH SSSSSSSS? \*\*\*\*\*

Welcome to DIALOG

### Status: Login successfulDialog level 05.06.01D

Last logoff: 21sep05 14:44:26

Logon file405 26sep05 09:28:14

\*\*\* ANNOUNCEMENT \*\*\*

\*\*\*

--UPDATED: Important Notice to Freelance Authors--

See HELP FREELANCE for more information

\*\*\*

## NEW FILES RELEASED

\*\*\*Computer and Information Systems Abstracts (File 56)

\*\*\*Electronics and Communicationss Abstracts (File 57)

\*\*\*Solid State and Superconductivity Abstracts (File 68)

\*\*\*ANTE: Abstracts in New Technologies (File 60)

\*\*\*Civil Engineering Abstracts (File 61)

\*\*\*Aluminium Industry Abstracts (File 33)

\*\*\*Ceramic Abstracts/World Ceramic Abstracts (File 335)

\*\*\*CSA Life Sciences Abstracts (File 24)

\*\*\*Corrosion Abstracts (File 46)

\*\*\*Materials Business File (File 269)

\*\*\*Engineered Materials Abstracts (File 293)

\*\*\*CSA Aerospace & High Technology Database (File 108)

\*\*\*CSA Technology Research Database (File 23)

\*\*\*METADEX(r) (File 32)

\*\*\*FDAnews (File 182)

\*\*\*German Patents Fulltext (File 324)

\*\*\*

## RESUMED UPDATING

\*\*\*Canadian Business and Current Affairs (262)

\*\*\*CorpTech (559)

\*\*\*

Chemical Structure Searching now available in Prous Science Drugs  
of the Future (F453), IMS R&D Focus (F445), Beilstein Facts (F390),  
and Derwent Chemistry Resource (F355).

\*\*\*

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<

>>> of new databases, price changes, etc. <<<

\*\*\*\*

\* \* \*

SYSTEM:HOME

Cost is in DialUnits

Menu System II: D2 version 1.7.9 term=ASCII

\*\*\* DIALOG HOMEBASE(SM) Main Menu \*\*\*

## Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)
5. Product Descriptions

## Connections:

6. DIALOG(R) Document Delivery
7. Data Star(R)

(c) 2003 Dialog, a Thomson business. All rights reserved.

/H = Help                      /L = Logoff                      /NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

?

Terminal set to DLINK

\*\*\* DIALOG HOMEBASE(SM) Main Menu \*\*\*

Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)
5. Product Descriptions

Connections:

6. DIALOG(R) Document Delivery
7. Data Star(R)

(c) 2003 Dialog, a Thomson business. All rights reserved.

/H = Help                      /L = Logoff                      /NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

? b biosci

```
>>>          44 is unauthorized
>>>          76 is unauthorized
>>>2 of the specified files are not available
      26sep05 09:28:41 User276741 Session D34.1
      $0.00    0.207 DialUnits FileHomeBase
      $0.00 Estimated cost FileHomeBase
      $0.11 TELNET
      $0.11 Estimated cost this search
      $0.11 Estimated total session cost    0.207 DialUnits
```

SYSTEM:OS - DIALOG OneSearch

```
File 5:Biosis Previews(R) 1969-2005/Sep W3
      (c) 2005 BIOSIS
File 24:CSA Life Sciences Abstracts 1966-2005/Aug
      (c) 2005 CSA.
File 28:Oceanic Abstracts 1966-2005/Aug
      (c) 2005 CSA.
File 34:SciSearch(R) Cited Ref Sci 1990-2005/Sep W3
      (c) 2005 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2005/Aug
      (c) 2005 ProQuest Info&Learning
File 40:Enviroline(R) 1975-2005/Jul
File 41:Pollution Abstracts 1966-2005/Aug
      (c) 2005 CSA.
```

File 50:CAB Abstracts 1972-2005/Aug  
(c) 2005 CAB International

File 65:Inside Conferences 1993-2005/Sep W3  
(c) 2005 BLDSC all rts. reserv.

File 71:ELSEVIER BIOBASE 1994-2005/Sep W3  
(c) 2005 Elsevier Science B.V.

File 73:EMBASE 1974-2005/Sep 26  
(c) 2005 Elsevier Science B.V.

File 91:MANTIS(TM) 1880-2005/Jun  
2001 (c) Action Potential

File 94:JICST-EPlus 1985-2005/Jul W5  
(c)2005 Japan Science and Tech Corp(JST)

File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.

File 110:WasteInfo 1974-2002/Jul  
(c) 2002 AEA Techn Env.

**\*File 110: This file is closed (no updates)**

File 135:NewsRx Weekly Reports 1995-2005/Sep W3  
(c) 2005 NewsRx

**\*File 135: New newsletters are now added. See Help News135 for the complete list of newsletters.**

File 136:BioEngineering Abstracts-1966-2005/Aug (c) 2005 CSA.

File 143:Biol. & Agric. Index 1983-2005/Jul  
(c) 2005 The HW Wilson Co

File 144:Pascal 1973-2005/Sep W3  
(c) 2005 INIST/CNRS

File 155:MEDLINE(R) 1951-2005/Sep 26  
(c) format only 2005 Dialog

File 164:Allied & Complementary Medicine 1984-2005/Sep  
(c) 2005 BLHCIS

File 172:EMBASE Alert 2005/Sep 26  
(c) 2005 Elsevier Science B.V.

File 185:Zoological Record Online(R) 1978-2005/Sep  
(c) 2005 BIOSIS

File 357:Derwent Biotech Res. \_1982-2005/Sep W4  
(c) 2005 Thomson Derwent & ISI

File 369:New Scientist. 1994-2005/Jun W4  
(c) 2005 Reed Business Information Ltd.

File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS

**\*File 370: This file is closed (no updates). Use File 47 for more current information.**

File 391:Beilstein Reactions 2005/Q2  
(c) 2005 Beilstein GmbH

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info

File 467:ExtraMED(tm) 2000/Dec  
(c) 2001 Informania Ltd.

**\*File 467: F467 no longer updates; see Help News467.**

7.

Set	Items	Description
?	s	((((umbilical (w) cord adj blood) or (cord (w) blood) or (fetal (w) umbilical (w) cord (w) blood) or (fetal (w) cells) or (fetal (w) tissue) or (placenta) or (post-partum (w) placenta) or (post-partum (w) placenta (w) perfusate)) and ((stem (w) cells) or pluripotent or potent))) not py>2002

Processing  
Processed 10 of 29 files ...  
Processing  
Processing  
Processing

Processed 20 of 29 files ...

>>>One or more prefixes are unsupported

>>> or undefined in one or more files.

Completed processing all files

```
162584 UMBILICAL
      0 CORD ADJ BLOOD
      0 UMBILICAL(W)CORD ADJ BLOOD
677160 CORD
8756820 BLOOD
      75192 CORD(W)BLOOD
835205 FETAL
162584 UMBILICAL
677160 CORD
8756820 BLOOD
      89 FETAL(W) UMBILICAL(W) CORD(W) BLOOD
835205 FETAL
9663682 CELLS
      8229 FETAL(W) CELLS
835205 FETAL
4705960 TISSUE
      10880 FETAL(W) TISSUE
206008 PLACENTA
      859 POST-PARTUM
206008 PLACENTA
      0 POST-PARTUM(W) PLACENTA
      859 POST-PARTUM
206008 PLACENTA
44555 PERFUSATE
      0 POST-PARTUM(W) PLACENTA(W) PERFUSATE
851460 STEM
9663682 CELLS
213790 STEM(W) CELLS
19552 PLURIPOTENT
914003 POTENT
12115375 PY>2002
S1 12348 (((UMBILICAL (W) CORD ADJ BLOOD) OR (CORD (W) BLOOD) OR
          (FETAL (W) UMBILICAL (W) CORD (W) BLOOD) OR (FETAL (W)
          CELLS) OR (FETAL (W) TISSUE) OR (PLACENTA) OR
          (POST-PARTUM (W) PLACENTA) OR (POST-PARTUM (W) PLACENTA
          (W) PERFUSATE)) AND ((STEM (W) CELLS) OR PLURIPOTENT OR
          POTENT))) NOT PY>2002
? s s1 and ((identif$7 or (CD34 or CD8 or CD10 or OCT4) or (antigenic (w)
determinant) or separate) and (count or number or FACS))
12348 S1
      0 IDENTIF$7
      75712 CD34
218703 CD8
      9699 CD10
      929 OCT4
277985 ANTIGENIC
265091 DETERMINANT
26378 ANTIGENIC(W) DETERMINANT
721363 SEPARATE
561628 COUNT
4832010 NUMBER
27202 FACS
S2 1234 S1 AND ((IDENTIF$7 OR (CD34 OR CD8 OR CD10 OR OCT4) OR
          (ANTIGENIC (W) DETERMINANT) OR SEPARATE) AND (COUNT OR
          NUMBER OR FACS))
? s s2 and (((accurate or accuracy) or confirm or confirmation) and assay)
1234 S2
```

701769 ACCURATE  
914134 ACCURACY  
512505 CONFIRM  
148245 CONFIRMATION  
1942609 ASSAY  
S3 14 S2 AND ((ACCURATE OR ACCURACY) OR CONFIRM OR  
CONFIRMATION) AND ASSAY)

? rd

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S4 10 RD (unique items)

? type s4/medium,k/all

4/K/1 (Item 1 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

(c) 2005 BIOSIS. All rts. reserv.

0013558306 BIOSIS NO.: 200200151817

**Comparative analysis of anti-KDR MoAbs (KDR1, KDR2): Specificity and capacity to recognize both hematopoietic stem cells and endothelial precursors**

AUTHOR: Botta Rosanna (Reprint); Mueller Robert (Reprint); Coppola Simona; Iannolo Gioacchin (Reprint); Pelosi Elvira; De Maria Ruggero; Valtieri Mauro (Reprint); Peschle Cesare (Reprint)

AUTHOR ADDRESS: Kimmel Cancer Center, T. Jefferson University, Philadelphia, PA, USA\*\*USA

JOURNAL: Blood 98 (11 Part 2): p114b November 16, 2001 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of Hematology, Part 2 Orlando, Florida, USA December 07-11, 2001; 20011207

SPONSOR: American Society of Hematology

ISSN: 0006-4971

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract

LANGUAGE: English

**Comparative analysis of anti-KDR MoAbs (KDR1, KDR2): Specificity and capacity to recognize both hematopoietic stem cells and endothelial precursors**

ABSTRACT: A small subset of post-natal **CD34** + cells (0.5-1.5%) express the vascular endothelial grow factor receptor 2 (KDR in...

...Pelosi et al, ASH, 2001) and hemoangioblasts (Valtieri) et la, ASH, 2001). Studies on the **CD34** +KDR+ cell population have been difficult due to the low frequency of these KDR+ cells...

...Koeln, Germany). Extensive titration studies confirmed that the MoAbs stain 0.5-1.5% of **CD34** + cells for **cord blood** (CB), adult bone marrow (BM) and normal or mobilized peripheral blood (NPB, MPB). Experiments with...

...conjugated KDR1 showed that cells recognized by biotinilated KDR2 are also recognized by KDR1. To **confirm** the specificity of KDR1/KDR2 MoAbs, diverse KDR-leukemic cell lines (MV-4-11, TFl...

...analysis. Furthermore, Western blot analysis indicated that exogenous KDR is recognized by the MoAbs. To **confirm** that both MoAbs recognize

**CD34 +KDR+ hematopoietic stem cells** (HSCs), **CD34 +** cells freshly separated from CB were stained with KDR1 and/or KDR2 Ab and separated into KDR+ vs KDR- cells by FACS Vantage. Unseparated **CD34 +** cells, **CD34 +KDR+** and **CD34 +KDR-** cells were tested for HSC repopulating activity in NOD-SCID mice, based on **assay** of human CD45+ cells in recipient BM after 6-12 wks (the breeders for the...

...colony were kindly provided by D. Bonnet, Camden Town, NJ). In 6 experiments a small **number** of **CD34 +KDR+** or **CD34 +KDR-** cells (500-5,000 cells/mouse) were injected: the engraftment levels induced by **CD34 +KDR+** cells were markedly higher (from 9- up to >40-fold: the highest ratios were...

...hematopoietic GFs and the engraftment tested at 12 wks). It is also noteworthy that the **CD34 ++38-** cell population enriched for HSCs is recognized by KDR1/KDR2 MoAbs. On the other hand **CD34 +KDR+** cells grown in liquid suspension or clonogenic culture supplemented with hematopoietic GFs and VEGF...

...2001), indicating the presence of not only HSCs but also endothelial precursors and hemoangioblasts in **CD34 +KDR+** cells.

DESCRIPTORS:

...ORGANISMS: PARTS ETC: hematopoietic **stem cells** --

4/K/2 (Item 2 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)

(c) 2005 BIOSIS. All rts. reserv.

0013246957 BIOSIS NO.: 200100418796

**Quantification of human cells in NOD/SCID mice by duplex real-time polymerase-chain reaction**

AUTHOR: Nitsche Andreas; Becker Michael; Junghahn Ilse; Aumann Jutta; Landt Olfert; Fichtner Iduna; Wittig Burghardt; Siegert Wolfgang (Reprint)

AUTHOR ADDRESS: Medizinische Klinik II, Charite Mitte, Schumanstr. 20/21, Charite Campus, 10117, Berlin, Germany\*\*Germany

JOURNAL: Haematologica 86 (7): p693-699 July, 2001 2001

MEDIUM: print

ISSN: 0390-6078

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

...ABSTRACT: of this study was the development of a fast and reliable polymerase chain reaction (PCR) **assay** which quantifies the proportion of human cells in immunodeficient chimeric mice, for example transplanted with human hematopoietic **stem cells**. Design and Methods: We developed a TaqMan chemistry-based, real-time duplex PCR **assay** to quantify human and murine DNA in a single-tube reaction in parallel (HUMu PCR...

...served to construct calibration curves. The test was applied to NOD/SCID mice transplanted with **CD34 +** cells isolated from human **cord blood** and compared to **FACS** analysis. Results: Analysis of DNA from human cells diluted stepwise into a fixed **number** of murine cells - and vice versa - led to calibration curves with good correlation for human...

...detection limit of 2% human cells. Results obtained with the HUMu PCR paralleled those of **FACS** analysis. However, in contrast to **FACS** analysis, which requires fresh single cell suspensions, the HUMu PCR can be carried out on...

...low. Interpretation and Conclusions: The HUmu PCR presented here is the first real-time PCR **assay** for simultaneous quantification of human and murine cells. It is extremely fast, **accurate** and is an interesting alternative method for quantifying the proportion of human DNA in organs ...

4/K/3 (Item 3 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
(c) 2005 BIOSIS. All rts. reserv.

0013150231 BIOSIS NO.: 200100322070

**Single platform flow cytometry accurately identifies and quantifies post thaw viable CD34 + cord blood progenitors**

AUTHOR: Akabutu John J (Reprint); Yang Hongyou (Reprint); McGann Locksley E (Reprint)

AUTHOR ADDRESS: Alberta Cord Blood Bank, Edmonton, AB, Canada\*\*Canada

JOURNAL: Blood 96 (11 Part 1): p381a November 16, 2000 2000

MEDIUM: print

CONFERENCE/MEETING: 42nd Annual Meeting of the American Society of Hematology San Francisco, California, USA December 01-05, 2000; 20001201

SPONSOR: American Society of Hematology

ISSN: 0006-4971

DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster

RECORD TYPE: Abstract

LANGUAGE: English

**Single platform flow cytometry accurately identifies and quantifies post thaw viable CD34 + cord blood progenitors**

ABSTRACT: Umbilical **cord blood** progenitors are an alternate source of hematopoietic progenitors for use in the reconstitution of compromised bone marrow due to a variety of causes. The progenitors are obtained from single **cord blood** samples with an average of 80mls. per donation. The small volume and hence a reduced **number** of transplantable progenitors limits the use of this source of **stem cells** to children and small adults. **Cord blood stem cells** have several advantages over peripheral blood and bone marrow including a reduced incidence of graft ...

...and quantify these progenitors accurately to ensure that adequate numbers are infused to ensure engraftment. **Cord blood** progenitors are routinely cryopreserved for future use. This procedure inherently poses risks for the identification and viability of the progenitors. The total nucleated cell **count**, **CD34 +** content and the CFU-C potential of the cryopreserved samples have all been used as...

...with varying degrees of success. Keeney et al. have described a single platform flow cytometric **assay** of **CD34 +** progenitors of hematopoietic **stem cells**. We applied this **assay** to post thaw samples of umbilical **cord blood CD34 +** progenitors. The inclusion of the viability dye, 7-AAD, with PE and FITC, enabled the **accurate** absolute **count** of recovered and viable **CD34 +** cells using Coulter EPICS XL/MCL cytometer. The progenitors were exposed to a technique of...

...the presence or absence of the cryoprotectant, DMSO to simulate potential freezing injury to the **CD34 +** cells. The studies were performed within 1 hr. of sample preparation. Our results showed that...

...of the viability dye, 7AAD, allowed the identification and enumeration of the viable post thaw **CD34 +** progenitors reliably using single

platform cytometry. In addition, controlled rate freezing of **cord blood** progenitors to -20degreeC, permitted the recovery of at least 75% of input **CD34** + cells. The single platform cytometric analysis should be reproducible among laboratories and could lead to standardization of the **cord blood** product of transplantation.

DESCRIPTORS:

ORGANISMS: PARTS ETC: **CD34** -positive **cord blood** progenitors...

4/K/4 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2005 Inst for Sci Info. All rts. reserv.

06915348 Genuine Article#: 102JN No. References: 109

**Title: Flow cytometric enumeration of CD34 (+) hematopoietic stem and progenitor cells**

Author(s): Gratama JW (REPRINT) ; Orfao A; Barnett D; Brando B; Huber A; Janossy G; Johnsen HE; Keeney M; Marti GE; Preijers F; Rothe G; Serke S ; Sutherland DR; VanderSchoot CE; Schmitz G; Papa S

Corporate Source: DR DANIEL DEN HOED CANC CTR,DEPT CLIN & TUMOR IMMUNOL, POB 5201/NL-3008 AE ROTTERDAM//NETHERLANDS/ (REPRINT); HOSP UNIV SALAMANCA,SERV CITOMETRIA, HEMATOL LAB/SALAMANCA//SPAIN//; ROYAL HALLAMSHIRE HOSP,DEPT HAEMATOL/SHEFFIELD S10 2JF/S YORKSHIRE/ENGLAND//; OSPED NIGUARDA CA GRANDA,LAB UNITA TRAPIANTO RENALE/MILAN//ITALY//; KANTONSSPITAL,ZENT LAB/AARAU//SWITZERLAND//; ROYAL FREE HOSP,SCH MED, DEPT CLIN IMMUNOL/LONDON//ENGLAND//; AMTSSYGEHUS HERLEV,DEPT HEMATOL/HERLEV//DENMARK//; LONDON HLTH SCI CTR,DEPT HEMATOL/LONDON/ON/CANADA//; NIH,MOL & CELLULAR BIOL LAB, CTR BIOL EVALUAT & RES, FOOD & DRUG ADM/BETHESDA//MD//; UNIV NIJMEGEN HOSP,DEPT HEMATOL/NL-6500 HB NIJMEGEN//NETHERLANDS//; UNIV REGENSBURG,KLINIKUM, INST KLIN CHEM & LAB MED/D-8400 REGENSBURG//GERMANY//; HUMBOLDT UNIV,ABT HEMATOL ONKOL, VIRCHOW KLINIKUM/BERLIN//GERMANY//; TORONTO HOSP,/TORONTO/ON M5T 2S8/CANADA//; DUTCH RES CROSS BLOOD TRANSFUS SERV,DEPT IMMUNOHEMATOL, CENT LAB/AMSTERDAM//NETHERLANDS//; UNIV URBINO,IST SCI MORFOL/I-61029 URBINO//ITALY/

Journal: CYTOMETRY, 1998, V34, N3 (JUN 15), P128-142

ISSN: 0196-4763 Publication date: 19980615

Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012

Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)

**Title: Flow cytometric enumeration of CD34 (+) hematopoietic stem and progenitor cells**

...Abstract: of flow cytometric assays to quantitate such cells on the basis of their expression of **CD34** , The variability associated with enumeration of low-frequency cells (i.e., as low as 0.1% or 5 cells/mu l) is exceedingly large, but recent developments have improved the **accuracy** and precision of the **assay** . Here, we review and compare the major techniques. Based on the current state of the...

...fluorochrome conjugates of class II or III monoclonal antibodies (mAbs) that detect all glycoforms of **CD34** , 2) use of a vital nucleic acid dye to exclude platelets, unlysed red cells, and...

...the definition of HPC, 4) during list mode data analysis, Boolean gating to resolve the **CD34** (+) HPCs from irrelevant cell populations on the basis of the low levels of CD45 expression and low sideward light-scatter signals of HPCs, 5) inclusion of **CD34** (dim) and **CD34** (bright) populations in the **CD34** (+) cell **count** , 6) omission of the negative control staining, and 7) for apheresis products, enumeration



of at least 100 **CD34** + cells to ensure a 10% precision. Unresolved technical questions are 1) the replacement of conventional dual-platform by single-platform **assay** formats, i.e., derivation of absolute **CD34** + cell counts from a single flow cytometric assessment instead of from combined flow cytometer (percent **CD34** (+)) and hematology analyzer (absolute leukocyte **count**) data, 2) the cross-calibration of the available single-platform assays, and 3) the optimal...

...Identifiers--UMBILICAL- **CORD BLOOD** ; MOBILIZED PERIPHERAL-BLOOD; COLONY-STIMULATING FACTOR; BONE-MARROW; G-CSF; LEUKAPHERESIS PRODUCTS; MALIGNANT-LYMPHOMA; QUALITY...

4/K/5 (Item 2 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2005 Inst for Sci Info. All rts. reserv.

03460401 Genuine Article#: PG272 No. References: 37

**Title: SENSITIVE DETECTION AND ENUMERATION OF CD34 + CELLS IN PERIPHERAL AND CORD - BLOOD BY FLOW-CYTOMETRY**

Author(s): SUTHERLAND DR; KEATING A; NAYAR R; ANANIA S; STEWART AK

Corporate Source: TORONTO GEN HOSP, ONCOL RES LABS, CCRW 3-825, 200 ELIZABETH ST/TORONTO M5G 2C4/ON/CANADA/; UNIV TORONTO, TORONTO GEN HOSP, AUTOLOGOUS BONE MARROW TRANSPLANT PROGRAM/TORONTO M5G 1L7/ON/CANADA/

Journal: EXPERIMENTAL HEMATOLOGY, 1994, V22, N10 (SEP), P1003-1010

ISSN: 0301-472X

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**Title: SENSITIVE DETECTION AND ENUMERATION OF CD34 + CELLS IN PERIPHERAL AND CORD - BLOOD BY FLOW-CYTOMETRY**

...Abstract: of hematopoietic progenitors in colony-forming assays is handicapped by lack of reproducibility and prolonged **assay** time. Alternative approaches of graft assessment by flow-cytometric enumeration of stem/progenitor cells bearing the **CD34** antigen can be hampered by low specificity and sensitivity. Here, we report a rapid and reliable multiparameter flow-cytometric approach to accurately enumerate **CD34** (+) cells in peripheral blood (PB) mononuclear cells (MNCs). Total nucleated white blood cells (WBCs) are...

...by staining with fluorescein isothiocyanate (FITC)-conjugated CD45 antibody. Simultaneous staining by phycoerythrin (PE)-conjugated **CD34** antibody defines an approximate **number** for the **CD34** (+) progenitor/stem cell subfraction. When starting **CD34** (+) cell numbers are low (0.01-0.5%), other nonspecifically stained leukocytes make **accurate** enumeration impossible. However, when the **CD34** (+) fraction is analyzed for CD45 expression vs. side scatter (granularity), true **CD34** (+) blast cells form a discrete cluster exhibiting low-density CD45 expression and low side-scatter...

...can be readily distinguished from lymphocytes, monocytes, granulocytes, and other events that can contaminate the **CD34** (+) population. Here, we used this sensitive procedure to enumerate **CD34** (+) cells in steady-state PB samples (0.03-0.09%), normal bone marrow (BM) aspirates, and umbilical **cord blood** collections (0.33-1.98%). This approach thus provides a means to analyze **CD34** (+) cells in specimens from patients who have been extensively treated with chemotherapy and those undergoing PB stem cell mobilization with cytokines. . Additionally, it is useful for assessment of **CD34** (+) cells in a variety of clinical samples exhibiting perturbations of the hematopoietic progenitor/stem cell...

...Identifiers--HEMATOPOIETIC PROGENITOR CELLS; HUMAN BONE-MARROW; **STEM** -

CELLS ; AUTOLOGOUS TRANSPLANTATION; QUANTITATION; ENGRAFTMENT;  
LEUKEMIA; INVITRO; BABOONS; THERAPY  
...Research Fronts: 2B)  
92-0984 001 (HUMAN HEMATOPOIETIC PROGENITOR CELLS; ROLE OF C-KIT  
LIGAND; IMMUNOMAGNETIC SEPARATED CD34 + CORD BLOOD )  
92-3312 001 (HUMAN CORD BLOOD PROGENITOR CELLS; LONG-TERM  
HEMATOPOIETIC CULTURES; GRANULOCYTE COLONY-STIMULATING FACTOR RECEPTOR)

4/K/6 (Item 1 from file: 98)  
DIALOG(R)File 98:General Sci Abs/Full-Text  
(c) 2005 The HW Wilson Co. All rts. reserv.

04755387 H.W. WILSON RECORD NUMBER: BGSA02005387 (USE FORMAT 7 FOR  
FULLTEXT)

**Prolactin: the new biology of an old hormone.**

Goffin, Vincent

Binart, Nadine; Touraine, Philippe

Annual Review of Physiology v. 64 (2002) p. 47-67

SPECIAL FEATURES: bibl il ISSN: 0066-4278

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

WORD COUNT: 10115

(USE FORMAT 7 FOR FULLTEXT)

...ABSTRACT: as the pituitary hormone of lactation, it has had attributed  
to it more than 300 **separate** actions, which can be correlated to the  
quasi-ubiquitous distribution of its receptor. Meanwhile, PRL...

TEXT:

... PRLR lacks intrinsic enzymatic activity and transduces its message  
inside the cell via a wide **number** of associated kinases, which in turn  
activate downstream effectors. The main and best-known cascades...

...PRL can no longer be restricted to these actions. We recently listed up  
to 300 **separate** functions or molecules activated by PRLR, which we  
organized into categories related to water and...promote lobuloalveolar  
differentiation and casein expression during rat pregnancy (67) and to be  
even more **potent** than wild-type hPRL on bone tissue (68), which indicates  
that this analog also displays...through the stromal compartment. Our  
findings demonstrate that GH, PRL, and EGF activate Stat5 in **separate**  
compartments, which in turn reflects their specific role in ductal and  
alveolar development and differentiation...epithelial PRLR is required not  
for alveolar bud formation but for lobuloalveolar development.

Behavior A **number** of experimental behavioral studies have clearly  
established PRLR as a regulator of maternal behavior. A...

...sperm capacitation and to enhance in vitro fertilization rates (94, 95),  
although others failed to **confirm** these findings (96). PRL can also  
influence the function of the accessory reproductive glands (97...the  
inhibition of PRLR-mediated effects (108). Obviously, in vivo studies will  
be necessary to **confirm** whether antagonists complement currently  
available anti-PRL molecules in clinical use.

Finally, a role of...

...increasing list of tissues identified as PRL sources are probably  
correlated to the unusually large **number** of functions reported for this  
hormone, some, but obviously not all of which were confirmed...

...or PRLR, one immediate goal in this field will be to understand how the amazing **number** of puzzling reports describing targets, mechanisms of actions, or functions of PRL can be linked...99:1978-80

2. Riddle O, Bates RW, Dykshorn SW. 1933. The preparation, identification and **assay** of prolactin--a hormone of the anterior pituitary. Am. J. Physiol. 105:191-216

3...F, Weiner RI. 1993. The 16-kilodalton N-terminal fragment of human prolactin is a **potent** inhibitor of angiogenesis. Endocrinology 133:1292-99

74. Martini JF, Piot C, Humeau LM, Struman...

...35

82. Astwood E, Greep R. 1938. A corpus luteum-stimulating substance in the rat **placenta**. Proc. Soc. Exp. Biol. Med. 38:713-16

83. Galosy S, Talamantes F. 1995. Luteotropic...

4/K/7 (Item 2 from file: 98)

DIALOG(R)File 98:General Sci Abs/Full-Text

(c) 2005 The HW Wilson Co. All rts. reserv.

03030264 H.W. WILSON RECORD NUMBER: BGS195030264 (USE FORMAT 7 FOR FULLTEXT)

**Shaping priorities in genetic medicine.**

AUGMENTED TITLE: part of a special supplement: Public priorities for genetic services

Boyle, Philip J

The Hastings Center Report (Hastings Cent Rep) v. 25 (May/June '95) p.

S2-S8

DOCUMENT TYPE: Feature Article

SPECIAL FEATURES: bibl ISSN: 0093-0334

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

WORD COUNT: 6501

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... In fact, some people think that the genetic cure is worse than the disease. The **number** of potential abuses of genetic information--denial of medical insurance or discrimination in employment, to...

...no disease condition. Complicating matters even further, we tend to hold unrealistic expectations about the **accuracy** and certainty of genetic information. People will be tested for conditions that might never fully... here what counts as genetic is confusing. Should cardiology services that utilize molecular techniques to confirm Marfan syndrome (a heart ailment) be considered genetic services, for example? The problem becomes murkier...

...fetoprotein (MSAFP) screening to detect neural tube defects and other disorders, rely on a biochemical **assay**, not a molecular test (in this case, moreover, to identify a condition for which no...

...component.

The difficulty of distinguishing conceptually between genetic and nongenetic conditions also argues against giving **separate** consideration to genetic services. Single-gene disorders with full penetrance and expressivity, accompanied by DNA...Fibrosis Foundation embraced research into genetic therapies, but not carrier screening, for cystic fibrosis. These **potent** forces raise the question whether planned, fair, and

comprehensive priority setting is ever possible.

The...the test has been demonstrated to meet well-defined, attainable goals; (b) the service is **accurate** and reliable; (c) the condition tested for is serious; and (d) there is an effective...

...consider a test to screen infants for a genetic anomaly "effective" if it yields an **accurate** diagnosis, even if no treatment exists for the diagnosed condition. Accepting such narrow judgments of...priorities a principle frequently proposed--consistent with the maxim, "The greatest good for the greatest **number**"--is that society ought to assign highest priority to providing the health care services that...

...future with the advent of multiplex testing administered through simple noninvasive means, such as sorting **fetal cells** from maternal blood. There is increasing concern that some information acquired from these multiplex tests...

4/K/8 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 Dialog. All rts. reserv.

14554167 PMID: 12521130

**Comparison of single and dual platform methodologies for the estimation of CD34 + hematopoietic progenitor cells: correlation with colony assay .**

Moretti S; Dabusti M; Castagnari B; Tieghi A; Ferrari L; Campioni D; Punturieri M; Dominici M; Castoldi G L; Lanza F

Section of Hematology, University of Ferrara, Ferrara and International Cancer Centre, Rovigo, Italy.

International journal of biological markers (Italy) Oct-Dec 2002, 17 (4) p259-67, ISSN 0393-6155 Journal Code: 8712411

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

**Comparison of single and dual platform methodologies for the estimation of CD34 + hematopoietic progenitor cells: correlation with colony assay .**

In this study three assays for the enumeration of **CD34 +** progenitors were compared: 1) a modified version of the Milan protocol, used in the standard...

...the ProCOUNT software version 2.0/ProCOUNT kit. The assays were compared to validate the **accuracy** of **CD34 +** cell counts in mobilized peripheral blood (PB), apheresis products (AP), and **cord blood** (CB). The ProCOUNT protocol uses reference beads for absolute **CD34 +** cell counting, whereas **CD34** counts by other techniques are derived from a **separate** leukocyte **count** performed by a hematology analyzer. A good correlation between the ISHAGE and ProCOUNT methods was obtained for estimation of **CD34 +** counts in PB (n=42 samples analyzed) and AP (n=35)--except for samples having a leukocyte **count**  $>25 \times 10^9/L$  or a **CD34 count**  $<0.0025 \times 10^9/L$ --while a suboptimal correlation between the methods was observed ...

... CB (n=30). The ProCOUNT system proved to be effective in reducing the variability in **CD34 +** cell counting and appeared to be useful for intralaboratory methodology standardization. The main disadvantage of the ProCOUNT **assay** was its inability to calculate **CD34** counts in leukopenic

samples and in CB samples showing a high erythroblast count . As far as the correlation with hematopoietic colonies is concerned, data collected from apheresis samples...

... and CB. We also found the dual-platform format of the ISHAGE method precise and **accurate** for the estimation of **CD34 +** cells from CB samples. Based on these data it can be concluded that the single-platform flow cytometry **assay** format should be the preferred approach for **CD34 +** stem cell enumeration in different types of samples.

Descriptors: \*Antigens, **CD34 --blood--BL**; \*Blood Cell Count --methods --MT; \*Flow Cytometry--methods--MT; \*Hematopoietic Stem Cells

Chemical Name: Antigens, **CD34**

4/K/9 (Item 1 from file: 370)

DIALOG(R) File 370:Science

(c) 1999 AAAS. All rts. reserv.

00508761 (USE 9 FOR FULLTEXT)

**Transduction of Human CD34 .sup(+)** Cells That Mediate Long-Term

**Engraftment of NOD/SCID Mice by HIV Vectors**

Miyoshi, Hiroyuki; Smith, Kent A.; Mosier, Donald E.; Verma, Inder M.; Torbett, Bruce E.

H. Miyoshi and I. M. Verma, Laboratory of Genetics, Salk Institute for Biological Studies, La Jolla, CA 92037, USA. K. A. Smith, D. E. Mosier, B. E. Torbett, Department of Immunology, Scripps Research Institute, La Jolla, CA 92037, USA.

Science Vol. 283 5402 pp. 682

Publication Date: 1-29-1999 (990129) Publication Year: 1999

Document Type: Journal ISSN: 0036-8075

Language: English

Section Heading: Reports

Word Count: 2783

(THIS IS THE FULLTEXT):

**Transduction of Human CD34 .sup(+)** Cells That Mediate Long-Term

**Engraftment of NOD/SCID Mice by HIV Vectors**

Abstract: Efficient gene transfer into human hematopoietic **stem cells** (HSCs) is an important goal in the study of the hematopoietic system as well as...

...A lentiviral vector based on the human immunodeficiency virus (HIV) was able to transduce human **CD34 .sup(+)** cells capable of stable, long-term reconstitution of nonobese diabetic/severe combined immunodeficient (NOD...

...Text: acquired disorders because these cells have the ability to regenerate the entire hematopoietic system. A **number** of in vitro assays have been established to detect **pluripotent** human hematopoietic cells (B1) . However, these in vitro assays are unable to evaluate the long...

...The NOD/SCID mouse (B2) has been used to evaluate human HSCs in vivo (B3) . **CD34 .sup(+)** primitive cells that have the capacity to initiate long-term multilineage engraftment in these...

...human HSCs. In this study, we evaluated whether HIV vectors could transfer genes into human **CD34 .sup(+)** cells that provide for long-term repopulation of NOD/SCID mice...

... **CD34 .sup(+)** cells were isolated from human umbilical **cord blood** and maintained in serum-free medium before transduction (B11) . To minimize

cycling and to maintain the in vivo repopulating capability, we transduced CD34<sup>+</sup> cells by means of a simple protocol in the absence of any exogenous cytokines. CD34<sup>+</sup> cells were transduced for 5 hours with VSV-G-pseudotyped HIV vector that contained...

...Transduction efficiencies were first assessed by in vitro assays. A portion of transduced CD34<sup>+</sup> cells was cultured for 5 days in serum-free medium containing recombinant human stem...

...3), and IL-6 (B13) . Under these conditions, about 60% of the cells retained the CD34<sup>+</sup> phenotype while cells were expanded about 18-fold. CD34<sup>+</sup> cells transduced with either HIV or MLV vector showed comparable numbers of GFP<sup>+</sup>...

...efficiency. To determine the transduction efficiency of colony-forming cell (CFC) progenitors, we plated transduced CD34<sup>+</sup> cells in methylcellulose with cytokines (B14) . GFP<sup>+</sup> CFC colonies, including burst-forming unit...

...CFC (HPP-CFC) colonies, were scored by fluorescence microscopy at days 14 and 21. The number of GFP<sup>+</sup> CFC colonies transduced with the HIV vector was 12-fold higher at...

...indicate that the HIV vector was more efficient than the MLV vector for transduction of CD34<sup>+</sup> progenitors that generate CFCs. No adverse effect of transduction on cell viability and proliferation...

...To assess the transduction efficiency of SRCs in the CD34<sup>+</sup> cell population, we transplanted transduced CD34<sup>+</sup> cells into sublethally irradiated NOD/SCID mice (B15) . Mice were serially bled from 7 ...

...B cell lymphopoiesis in this model (B17) . Representative results shown in Fig. 1 demonstrate that CD34<sup>+</sup> cells transduced with the HIV vector gave rise to GFP<sup>+</sup> human cells in...

...integrated vector. In contrast, none of the mice (n = 6) transplanted with MLV vector-transduced CD34<sup>+</sup> cells had detectable GFP<sup>+</sup> human cells in the PB (Fig. 1), although these...

...human cells in the PB similar to those of mice transplanted with HIV vector-transduced CD34<sup>+</sup> cells...

...Representative flow cytometry results of BM cells from a mouse transplanted with HIV vector-transduced CD34<sup>+</sup> cells are shown in Fig. 2. About 27% of human (CD45<sup>+</sup>) cells in...

...predominant population, and CD14<sup>+</sup> myeloid cells. In addition to differentiated human cells, GFP<sup>+</sup> CD34<sup>+</sup> cells were detected, suggesting that immature GFP<sup>+</sup> cells were maintained in the BM. The results from three separate experiments are summarized in Table 1. These results document the presence of GFP<sup>+</sup> human...

...PB (range 2 to 20%) of all mice (n = 14) transplanted with HIV vector-transduced CD34<sup>+</sup> cells. There was no substantial difference between an MOI of 60 and 300. On...

...sup<sup>+</sup> human cells were detected in all mice (n = 6) transplanted with MLV vector-transduced CD34<sup>+</sup> cells. In addition, polymerase chain reaction (PCR) analysis of genomic DNA from BM cells...

...the GFP gene only in the BM cells from mice transplanted with HIV vector-transduced **CD34** .sup(+) cells (Fig. 3A...

...and HPP-CFC colonies, derived from BM cells of mice transplanted with HIV vector-transduced **CD34** .sup(+) cells expressed GFP (range 3 to 77%) (see Table 1). The presence of the...

...contrast, no GFP.sup(+) CFC colonies were detected from mice transplanted with MLV vector-transduced **CD34** .sup(+) cells, further confirming the flow cytometric analysis of PB, BM, and spleen cells...  
...the average percentage of transduction of CFC colonies from mice transplanted with HIV vector-transduced **CD34** .sup(+) cells was 38 +/- 7% (range 12 to 74%) at an MOI of 60 and...the basis of human transplantation studies, human HSCs are known to be included in the **CD34** .sup(+) cell population. A **number** of groups have provided strong evidence that the Lin.sup(-) **CD34** .sup(+)CD38.sup(-) cell subpopulation contains SRCs, and it has been proposed that this subpopulation...

...SRCs without cytokine prestimulation. Although several groups have recently shown, by in vitro assays, that **CD34** .sup(+) cells can be transduced (B20) , we have established here the ability of HIV vectors...

...HIV vectors under the conditions we used. Recent studies have shown that the Lin.sup(-) **CD34** .sup(-) cell population also has long-term repopulating capacity and may be a precursor of Lin.sup(-) **CD34** .sup(+) HSCs (B21) . Therefore, it would be of interest to determine whether HIV vectors can transduce these Lin.sup(-) **CD34** .sup(-) cells and possibly **confirm** the proposed role of these cells in the hierarchy of the hematopoietic system. Finally, a...

...sup(+) human cells in the PB of NOD/SCID mice transplanted with HIV vector-transduced **CD34** .sup(+) cells. Mononuclear cells were isolated from mice at indicated times after transplantation. The percentages...

...human CD45 (leukocyte common antigen). Representative results from four mice transplanted with HIV vector-transduced **CD34** .sup(+) cells and all mice (n = 6) transplanted with MLV vector-transduced **CD34** .sup(+) cells are shown. (square-solid) , mouse **number** 84, HIV (MOI 60); \* , mouse **number** 95, HIV (MOI 60); &square;, mouse **number** 10, HIV (MOI 300); (open-circle) , mouse **number** 92; down triangle, filled , all MLV (MOI 60 and 300...

...Table : Columns 1 - 9 of 11

-----  
Caption:

HIV, but not MLV, vectors can transduce human **CD34** + cells that give rise to lymphoid and myeloid lineages in engrafted NOD/SCID mice.  
-----

Vector	MOI	Mouse <b>number</b>	Weeks after transplantation	Human cell engraftment in BM (%)	GFP+ human cells in (%):	BM	Spleen	PB
--------	-----	------------------------	--------------------------------	--	-----------------------------	----	--------	----

HIV	60	86	8	46	17		15...	
-----	----	----	---	----	----	--	-------	--

...16, 16		42, 9, 34	0	0	0	0		
		= 3)						

Footnote:

Multiplicity of infection for CD34 + cells.

Footnote:

Results from three independent experiments are shown.

Footnote:

The percentage of human GFP...

...Table : Columns 10 - 11 of 11

-----  
Caption:

HIV, but not MLV, vectors can transduce human CD34 + cells that give rise to lymphoid and myeloid lineages in engrafted NOD/SCID mice.  
-----

Vector...

...14

18 +/-	28 +/-
10	13

MLV	0	0
-----	---	---

0	0
---	---

Footnote:

Multiplicity of infection for CD34 + cells.

Footnote:

Results from three independent experiments are shown.

Footnote:

The percentage of human GFP...and myeloid cells from the BM of NOD/SCID mice transplanted with HIV vector-transduced CD34 .sup(+) cells.

Representative flow cytometric analyses of BM cells from mice transplanted with mock-or HIV vector-transduced CD34 .sup(+) cells (mouse number 95) are shown. Both mice had similar levels of human cell engraftment. Presented values are...

...the GFP gene. Genomic DNA isolated from BM cells of NOD/SCID mice transplanted with CD34 .sup(+) cells infected with either HIV or MLV vector was analyzed by PCR with primers...

...PCR with primers that amplified a 307-bp fragment of human (beta) -globin gene. The number of the mouse analyzed is indicated above each lane. M, size markers. (B) PCR analysis...

...NOD/SCID mice were analyzed by PCR as described above. Representative results obtained from mouse number 86 are shown. GFP.sup(+) (+) and GFP.sup(-) (-) colonies were determined by fluorescence microscopy. (C...

...GFP in CFC colonies derived from BM cells of mice transplanted with HIV vector-transduced CD34 .sup(+) cells. CFC colonies derived from BM cells of engrafted mice were analyzed by fluorescence...

References and Notes:

...6. Nienhuis, A. W., Bertran, J., Hargrove, P., Vanin, E., Yang, Y., Stem Cells , 15 (suppl. 1) 1997, 123...

...Havenga, M., Hoogerbrugge, P., Valerio, D., van Es, H. H., Stem Cells , 15 1997, 162...11. Cord blood was obtained at the Scripps Memorial Hospital from infants with uncompromised deliveries. Mononuclear cells were obtained from cord blood as previously described [B. Reinhardt et al., AIDS Res. Hum. Retroviruses 10, 131 (1994)]. CD34 .sup(+) cells were isolated from cord blood mononuclear cells with a



VarioMACS device (Miltenyi Biotec, Auburn, CA) according to the manufacturer's instructions. After isolation, CD34<sup>+</sup> cells were resuspended at a concentration of  $4.5 \times 10^6$  cells...

...supplemented with 10% BIT 9500 serum substitute (Stem Cell Technologies, Vancouver, Canada). The purity of CD34<sup>+</sup> cells was >95% as determined by flow cytometry...viral vectors were determined by infection of 293T cells.  $1.2 \times 10^6$  CD34<sup>+</sup> cells maintained in serum-free medium for 24 hours were transduced with each viral...

...9 ml for 5 hours at 37.Deg.C in 5% CO<sub>2</sub>. Transduced CD34<sup>+</sup> cells were washed with serum-free medium and then used for in vitro assays...

...13.  $2 \times 10^4$  transduced or mock-transduced CD34<sup>+</sup> cells/ml were incubated in serum-free medium containing the following recombinant human cytokines...

...14. For the CFC assay, 500 CD34<sup>+</sup> cells or total BM cells from engrafted mice containing 500 human CD34<sup>+</sup> cells, as determined by flow cytometry, were plated in triplicate 35-mm dishes with...

...15.  $2.0$  to  $3.5 \times 10^5$  transduced or mock-transduced CD34<sup>+</sup> cells were transplanted by tail-vein injection into sublethally irradiated (300 centigrays by .sup...

...detected by staining with PE-conjugated antibodies to human CD14 (monocytes), CD19 (B cells), and CD34 (progenitor cells). PE-conjugated mouse immunoglobulin G1 was used as an isotype control. All antibodies were purchased from Becton Dickinson. In each experiment, cells from mice transplanted with mock-transduced CD34<sup>+</sup> cells were analyzed as a negative control for GFP expression...giving a 307-bp fragment. BM cells or CFCs from mice transplanted with mock-transduced CD34<sup>+</sup> cells were used as a negative control. PCR products were electrophoresed on 2% agarose...Labor and Delivery nursing staff at the Scripps Memorial Hospital for their efforts in providing cord blood. We also thank H. Perkin and B. Griffeth for technical assistance, N. Somia for critical...

4/K/10 (Item 2 from file: 370)  
 DIALOG(R)File 370:Science  
 (c) 1999 AAAS. All rts. reserv.

00507965 (USE 9 FOR FULLTEXT)

**Embryonic Stem Cell Lines Derived from Human Blastocysts**

Thomson, James A.; Itskovitz-Eldor, Joseph; Shapiro, Sander S.; Waknitz, Michelle A.; Swiergiel, Jennifer J.; Marshall, Vivienne S.; Jones, Jeffrey M.

J. A. Thomson, M. A. Waknitz, J. J. Swiergiel, V. S. Marshall, Wisconsin Regional Primate Research Center, University of Wisconsin, Madison, WI 53715, USA. J. Itskovitz-Eldor, Department of Obstetrics and Gynecology, Rambam Medical Center, Faculty of Medicine, Technion, Haifa 31096, Israel. S. S. Shapiro and J. M. Jones, Department of Obstetrics and Gynecology, University of Wisconsin, Madison, WI 53715, USA.

Science Vol. 282 5391 pp. 1145

Publication Date: 11-06-1998 (981106) Publication Year: 1998

Document Type: Journal ISSN: 0036-8075

Language: English

Section Heading: Reports

Word Count: 2041

(THIS IS THE FULLTEXT)

Abstract: Human blastocyst-derived, **pluripotent** cell lines are described that have normal karyotypes, express high levels of telomerase activity, and express cell surface markers that characterize primate embryonic **stem cells** but do not characterize other early lineages. After undifferentiated proliferation in vitro for 4 to...

...Text: mouse germ line (B3) . The term "ES cell" was introduced to distinguish these embryo-derived **pluripotent** cells from teratocarcinoma-derived **pluripotent** embryonal carcinoma (EC) cells (B2) . Given the historical introduction of the term "ES cell" and...

...line in chimeras is not a testable property. Nonhuman primate ES cell lines provide an **accurate** in vitro model for understanding the differentiation of human tissues (B4) (B5) . We now describe...

...stage, 14 inner cell masses were isolated, and five ES cell lines originating from five **separate** embryos were derived, essentially as described for nonhuman primate ES cells (B5) (B6) . The resulting...period, knowledge of normal human development is largely restricted to the description of a limited **number** of sectioned embryos and to analogies drawn from the experimental embryology of other species (B21) . Although the mouse is the mainstay of experimental mammalian embryology, early structures including the **placenta** , extraembryonic membranes, and the egg cylinder all differ substantially from the corresponding structure of the ...

...similarities to humans and human ES cells, rhesus monkeys and rhesus ES cells provide an **accurate** model for developing strategies to prevent immune rejection of transplanted cells and for demonstrating the...passages 10 to 13. About 2000 cells were assayed for each telomeric repeat amplification protocol **assay** , and 800 cell equivalents were loaded in each well of a 12.5% nondenaturing polyacrylamide...

#### References and Notes:

...15. Andrews, P. W., Oosterhuis, J., Damjanov, I., Ed. by Robertson, E., Teratocarcinomas and Embryonic **Stem Cells** , A Practical Approach, 1987, 207248 IRL, Oxford...Corporation for the 293 and MDA cell pellets and for assistance with the telomerase TRAP **assay** . Supported by the University of Wisconsin (UIR grant 2060) and Geron Corporation (grant 133-BU18).

? s au=hariri

S5 4 AU=HARIRI

? rd

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S6 4 RD (unique items)

? type s6/free/all

6/8/1 (Item 1 from file: 144)

DIALOG(R)File 144:(c) 2005 INIST/CNRS. All rts. reserv.

02508312 PASCAL No.: 80-0089599

LA GESTION REGIONALE DE L'EAU DANS UN PAYS ARIDE

1978

English Descriptors: WATER MANAGEMENT; IRAN; NATIONAL POLICY  
English Generic Descriptors: HYDROLOGY

French Descriptors: GESTION RESSOURCE EAU; ARIDITE; POLITIQUE ETAT; IRAN  
French Generic Descriptors: HYDROLOGIE

Classification Codes: 226A08

6/8/2 (Item 1 from file: 155)  
DIALOG(R)File 155:(c) format only 2005 Dialog. All rts. reserv.  
01991866 PMID: 15412527 Record Identifier: 5019-2062-103-242  
[Danger of cold permanents.]  
Les dangers des ondulations permanentes a froid.  
Apr 1950  
Identifiers: \*HAIR; \*THIOGLYCOLLIC ACID

6/8/3 (Item 1 from file: 391)  
Reaction Id: 6748822  
Reactants  
BN=1697284 carbon oxide sulfide

6/8/4 (Item 2 from file: 391)  
Reaction Id: 6226179  
Reactants  
BN=1098293 carbon disulfide  
? ds

Set	Items	Description
S1	12348	((((UMBILICAL (W) CORD ADJ BLOOD) OR (CORD (W) BLOOD) OR (-FETAL (W) UMBILICAL (W) CORD (W) BLOOD) OR (FETAL (W) CELLS) OR (FETAL (W) TISSUE) OR (PLACENTA) OR (POST-PARTUM (W) PLACENTA) OR (POST-PARTUM (W) PLACENTA (W) PERFUSATE)) AND ((STEM - (W) CELLS) OR
S2	1234	S1 AND ((IDENTIF\$7 OR (CD34 OR CD8 OR CD10 OR OCT4) OR (ANTIGENIC (W) DETERMINANT) OR SEPARATE) AND (COUNT OR NUMBER OR FACS))
S3	14	S2 AND (((ACCURATE OR ACCURACY) OR CONFIRM OR CONFIRMATION) AND ASSAY)
S4	10	RD (unique items)
S5	4	AU=HARIRI
S6	4	RD (unique items)
? s s3 and ((plurality (n) source (n) cell) or (multiple (w) donor) or (five (w) (individuals or donors)) or (two (w) (individual or donor)))		
Processing		
Processed 10 of 29 files ...		
Completed processing all files		
	14	S3
	10705	PLURALITY
	1584395	SOURCE
	13384223	CELL
	0	PLURALITY (N) SOURCE (N) CELL
	2705066	MULTIPLE
	574180	DONOR
	481	MULTIPLE (W) DONOR
	2620188	FIVE
	1243269	INDIVIDUALS

```

357043 DONORS
4840 FIVE(W) (INDIVIDUALS OR DONORS)
12548735 TWO
1863662 INDIVIDUAL
574180 DONOR
5061 TWO(W) (INDIVIDUAL OR DONOR)
S7 0 S3 AND ((PLURALITY (N) SOURCE (N) CELL) OR (MULTIPLE (W)
DONOR) OR (FIVE (W) (INDIVIDUALS OR DONORS)) OR (TWO (W)
(INDIVIDUAL OR DONOR)))
? s (((umbilical (w) cord (w) blood) or (cord (w) blood) or (umbilical (w)
cord (w) blood) or or (placenta) or (post-partum (w) placenta)) and ((stem
(w) cells) or pluripotent or potent)) not @py>2002
>>>Operator "OR" in invalid position
? s (((umbilical (w) cord (w) blood) or (cord (w) blood) or (umbilical (w)
cord (w) blood) or (placenta) or (post-partum (w) placenta)) and ((stem (w)
cells) or pluripotent or potent)) not @py>2002
>>>One or more prefixes are unsupported
>>> or undefined in one or more files.
Processing
Processed 10 of 29 files ...
Processing
Processed 20 of 29 files ...
Completed processing all files
162584 UMBILICAL
677160 CORD
8756820 BLOOD
28743 UMBILICAL(W) CORD(W) BLOOD
677160 CORD
8756820 BLOOD
75192 CORD(W) BLOOD
162584 UMBILICAL
677160 CORD
8756820 BLOOD
28743 UMBILICAL(W) CORD(W) BLOOD
206008 PLACENTA
859 POST-PARTUM
206008 PLACENTA
0 POST-PARTUM(W) PLACENTA
851460 STEM
9663682 CELLS
213790 STEM(W) CELLS
19552 PLURIPOTENT
914003 POTENT
0 @PY>2002
S8 15556 (((UMBILICAL (W) CORD (W) BLOOD) OR (CORD (W) BLOOD) OR
(UMBILICAL (W) CORD (W) BLOOD) OR (PLACENTA) OR
(POST-PARTUM (W) PLACENTA)) AND ((STEM (W) CELLS) OR
PLURIPOTENT OR POTENT)) NOT @PY>2002
?
? s S8 and (((multiple or plurality) adj cell adj types) and ((separate (w)
components) or (separate (w) cell (w)types)))
>>>Invalid syntax
? s S8 and (((multiple or plurality) (w) cell (w) types) and ((separate (w)
components) or (separate (w) cell (w)types)))
Processing
Processed 10 of 29 files ...
Processing
Processed 20 of 29 files ...
Processing
Completed processing all files
15556 S8

```

```

2705066 MULTIPLE
10705 PLURALITY
13384223 CELL
2579317 TYPES
3198 (MULTIPLE OR PLURALITY) (W) CELL (W) TYPES
721363 SEPARATE
1786823 COMPONENTS
2884 SEPARATE (W) COMPONENTS
721363 SEPARATE
13384223 CELL
2579317 TYPES
131 SEPARATE (W) CELL (W) TYPES
S9 0 S8 AND ((MULTIPLE OR PLURALITY) (W) CELL (W) TYPES) AND
((SEPARATE (W) COMPONENTS) OR (SEPARATE (W) CELL
(W) TYPES)))
? s s8 and ((separate (w) components) or (separate (w) cell (w) types))
Processing
Processed 10 of 29 files ...
Completed processing all files
15556 S8
721363 SEPARATE
1786823 COMPONENTS
2884 SEPARATE (W) COMPONENTS
721363 SEPARATE
13384223 CELL
2579317 TYPES
131 SEPARATE (W) CELL (W) TYPES
S10 0 S8 AND ((SEPARATE (W) COMPONENTS) OR (SEPARATE (W) CELL
(W) TYPES)))
? ds

Set Items Description
S1 12348 (((UMBILICAL (W) CORD ADJ BLOOD) OR (CORD (W) BLOOD) OR (-
FETAL (W) UMBILICAL (W) CORD (W) BLOOD) OR (FETAL (W) CELLS)
OR (FETAL (W) TISSUE) OR (PLACENTA) OR (POST-PARTUM (W) PLACE-
NTA) OR (POST-PARTUM (W) PLACENTA (W) PERFUSATE)) AND ((STEM -
(W) CELLS) OR
S2 1234 S1 AND ((IDENTIF$7 OR (CD34 OR CD8 OR CD10 OR OCT4) OR (AN-
TIGENIC (W) DETERMINANT) OR SEPARATE) AND (COUNT OR NUMBER OR
FACS))
S3 14 S2 AND (((ACCURATE OR ACCURACY) OR CONFIRM OR CONFIRMATION)
AND ASSAY)
S4 10 RD (unique items)
S5 4 AU=HARIRI
S6 4 RD (unique items)
S7 0 S3 AND ((PLURALITY (N) SOURCE (N) CELL) OR (MULTIPLE (W) D-
ONOR) OR (FIVE (W) (INDIVIDUALS OR DONORS)) OR (TWO (W) (INDI-
VIDUAL OR DONOR)))
S8 15556 (((UMBILICAL (W) CORD (W) BLOOD) OR (CORD (W) BLOOD) OR (U-
MBILICAL (W) CORD (W) BLOOD) OR (PLACENTA) OR (POST-PARTUM (W)
PLACENTA)) AND ((STEM (W) CELLS) OR PLURIPOTENT OR POTENT))
NOT @PY>2002
S9 0 S8 AND ((MULTIPLE OR PLURALITY) (W) CELL (W) TYPES) AND (-
(SEPARATE (W) COMPONENTS) OR (SEPARATE (W) CELL (W) TYPES)))
S10 0 S8 AND ((SEPARATE (W) COMPONENTS) OR (SEPARATE (W) CELL (-
W) TYPES))
? save temp
Temp SearchSave "TG118341285" stored
? logoff
26sep05 09:50:05 User276741 Session D34.2
$19.93 3.378 DialUnits File5

```

\$0.48 3 Type(s) in Format 95 (KWIC)  
 \$0.48 3 Types  
 \$20.41 Estimated cost File5  
 \$3.82 0.616 DialUnits File24  
 \$3.82 Estimated cost File24  
 \$0.58 0.094 DialUnits File28  
 \$0.58 Estimated cost File28  
 \$41.18 1.860 DialUnits File34  
 \$12.86 2 Type(s) in Format 3  
 \$12.86 2 Types  
 \$54.04 Estimated cost File34  
 \$0.97 0.236 DialUnits File35  
 \$0.97 Estimated cost File35  
 \$0.53 0.074 DialUnits File40  
 \$0.53 Estimated cost File40  
 \$0.51 0.082 DialUnits File41  
 \$0.51 Estimated cost File41  
 \$2.33 0.506 DialUnits File50  
 \$2.33 Estimated cost File50  
 \$0.61 0.162 DialUnits File65  
 \$0.61 Estimated cost File65  
 \$8.54 0.976 DialUnits File71  
 \$8.54 Estimated cost File71  
 \$28.88 2.717 DialUnits File73  
 \$28.88 Estimated cost File73  
 \$0.36 0.084 DialUnits File91  
 \$0.36 Estimated cost File91  
 \$2.02 0.579 DialUnits File94  
 \$2.02 Estimated cost File94  
 \$0.92 0.216 DialUnits File98  
 \$2.90 2 Type(s) in Format 3  
 \$2.90 2 Types  
 \$3.82 Estimated cost File98  
 \$0.36 0.062 DialUnits File110  
 \$0.36 Estimated cost File110  
 \$1.11 0.206 DialUnits File135  
 \$1.11 Estimated cost File135  
 \$0.75 0.121 DialUnits File136  
 \$0.75 Estimated cost File136  
 \$0.36 0.121 DialUnits File143  
 \$0.36 Estimated cost File143  
 \$5.80 1.289 DialUnits File144  
 \$0.00 1 Type(s) in Format 8  
 \$0.00 1 Types  
 \$5.80 Estimated cost File144  
 \$11.46 3.372 DialUnits File155  
 \$0.22 1 Type(s) in Format 3  
 \$0.00 1 Type(s) in Format 8  
 \$0.22 2 Types  
 \$11.68 Estimated cost File155  
 \$0.24 0.068 DialUnits File164  
 \$0.24 Estimated cost File164  
 \$0.95 0.090 DialUnits File172  
 \$0.95 Estimated cost File172  
 \$0.90 0.146 DialUnits File185  
 \$0.90 Estimated cost File185  
 \$5.57 0.265 DialUnits File357  
 \$5.57 Estimated cost File357  
 \$0.25 0.072 DialUnits File369  
 \$0.25 Estimated cost File369  
 \$0.31 0.088 DialUnits File370

\$3.00 2 Type(s) in Format 3  
    \$3.00 2 Types  
\$3.31 Estimated cost File370  
    \$0.00 0.115 DialUnits File391  
    \$0.00 2 Type(s) in Format 6  
    \$0.00 2 Types  
\$0.00 Estimated cost File391  
    \$5.56 0.251 DialUnits File434  
\$5.56 Estimated cost File434  
    \$0.36 0.056 DialUnits File467  
\$0.36 Estimated cost File467  
    OneSearch, 29 files, 17.901 DialUnits FileOS  
\$5.86 TELNET  
\$170.48 Estimated cost this search  
\$170.59 Estimated total session cost 18.108 DialUnits

Logoff: level 05.06.01 D 09:50:05

You are now logged off